INTERCHANGEABLE CML/LVDS DATA TRANSMISSION CIRCUIT

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RELATED APPLICATION

This application is a Continuation-In-Part of Serial No. 10/008,039 filed November 8, 2001, which is entitled "INNOVATIVE HIGH SPEED LVDS DRIVER CIRCUIT". [1] is now abandened.

TECHNICAL FIELD OF INVENTION

The present invention relates generally to transceiver device applications in the transmission of CML and LVDS level signals. More particularly, the present invention relates to a high speed driver circuit for data transmission of a standard CML or a standard LVDS compatible differential signal, providing high compliance of the common mode output even at high load currents, while maintaining a simple pre-drive circuit design with a wide common mode range.

BACKGROUND OF THE INVENTION

Low Voltage Differential Signaling (LVDS) and Current Mode Logic (CML) standards are two of the most common high-speed data transmission methods used today, and are redefining data transmission at the physical layer interface, and the point-to-point device interface. LVDS and CML are bringing high speeds and low power to these critical interfaces, providing an essential step in meeting the high bandwidth requirements of tomorrow's networking, telecommunications and multimedia applications.

LVDS is a new data interface standard that is defined in the TIA/EIA-644 and the IEEE 1596.3 standards. The TIA/EIA644 standard is also the most common LVDS standard, strictly dictating all of the electrical parameters that must be met by LVDS drivers and receivers. It is essentially a low noise, low power, low amplitude signaling method used for high-speed data transmission of binary data over copper wire. CML is not regulated by standard, but is instead a loose driver output standard based on a particularly simple output protocol.